

REMARKS

The Examiner has rejected Claims 5, 9 and 23 under 35 U.S.C. 112, second paragraph, as being indefinite. Applicant has amended Claim 5 to remove the indefinite language. Applicant has canceled Claims 9 and 23.

The Examiner has rejected Claims 1-8, 10-12, 14-15 and 19-23 under 35 U.S.C. 102(e) as being anticipated by Friedrich et al (6,938,771). Friedrich teaches film wrapped containers and production processes.

Claim 1 has been amended to include the further limitation of the "length of the sleeve being less than one half of the circumference of the sleeve". Friedrich does not teach the relationship of the length of the sleeve to the circumference of the sleeve. Claim 1 also now includes the sleeve being colored.

Claims 2, 3, 4, and 5 are each dependent upon Claim 1, so the amendments to Claim 1 also pertain to, and encompass, and amend the scope of Claims 2 through 5.

Claims 6, 7, 8, 9, 10, and 11 have been canceled.

Applicant has amended Claim 12 to include the added limitation of the length of the sleeve being less than one half of the circumference of the sleeve and the sleeve having a color.

Claims 13, 14, and 15 have been canceled.

Claim 16 has been amended to include the added limitation of "the length of the material being less than one half of the

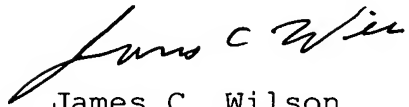
circumference of the material, the length being between about 1/8 inch and 1 inch".

Claims 17 through 27 are canceled.

The Examiner has rejected Claims 16 - 18 and 25 - 27 under h 35 U.S.C. 103(a) as being unpatentable over Lesko (6,000,258 in view of Friedrich et al. Claim 16 is the only claim not canceled, and will be discussed. Applicant submits that Lesko and Friedrich cannot be combined to form the basis for an obviousness type rejection. Lesko teaches a key with a number of punch outs and break aways. Nothing in Friedrich is concerned with punchouts or break aways. In fact, Lesko's teaching is made ineffectual if one wraps the Lesko key with a plastic wrap, as is taught in Friedrich. A blind person could not detect the braille symbols on the key if the key were to be shrink wrapped with a smooth plastic layer. For all practical purposes, with the covering of Friedrich covering the key, any indicia or markings used by Lesko would be ablated, and undetectable. Applicant submits that the amendment to Claim 16 removes the present application from the prior art, both under anticipation and obviousness.

Applicant submits that the foregoing arguments fully address each of the Examiner's rejections. The Applicant, therefore, requests that the Examiner withdraw the rejections and pass the application forward to issue.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "James C. Wilson".

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Office Action Summary

Application No.

10/550,944

Applicant(s)

WILSON, JAMES C.

Examiner

Syed A. Islam

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Response to Office Action

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 20050928.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 9 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 5, 9 and 23, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 10-12, 14-15 and 19-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Friedrich et al. (6,938,771).

Regarding claim 1, Friedrich et al. disclose that a key label comprising: a substantially cylindrical sleeve 6 (col. 8, line 11; see fig. 3) having an inner surface 10 (col. 8, line 21; see fig. 3) and an outer surface and formed of a heat shrink material, the inner surface of the substantially cylindrical sleeve having a through opening (see fig. 3) adapted to slip over a

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key head such that it fits around a head end of a key and the substantially cylindrical sleeve to be heat shrunk to substantially encase the head end of the key.

Regarding claim 19, Friedrich et al. disclose that a key label comprising: means for substantially encasing a head end 4 of means for opening, said substantially encasing means including a substantially cylindrical sleeve 6 having an inner surface 10 and an outer surface and formed of a heat shrink material, the inner surface of the substantially cylindrical sleeve having a through opening adapted to slip over a head end of the opening means to be heat shrink to substantially encase the head end of the opening means.

Regarding claims 2 and 20, Friedrich et al. disclose that when the substantially cylindrical sleeve is shrunk to fit around the head end of the key upon being heated to a predetermined temperature (col. 9, line 28), the inner surface 10 of the substantially cylindrical sleeve at least partially contacting a portion 4 (col. 8, line 19; see fig. 1) of the head end of the key after shrinking.

Regarding claims 3 and 21, Friedrich et al. disclose that the outer surface of the substantially cylindrical sleeve provides a writeable surface for application of an identifying mark to be applied (col. 6, lines 48-52).

Regarding claims 4 and 22, Friedrich et al. disclose that the substantially cylindrical sleeve, when shrunk covers only the head end 4 of the key or the opening means.

Regarding claims 5 and 23, Friedrich et al. disclose that the heat shrink material comprises one of polyolefin, polyvinyl chloride (col. 8, line 46; see fig. 3), polytetrafluoroethylene (Teflon), or polychloroprene (Neoprene) or the like.

Regarding claim 6, Friedrich et al. disclose that the substantially cylindrical sleeve is at least partially transparent (col. 8, line 27).

Regarding claim 8, Friedrich et al. disclose that the sleeve is performed to conform to the shape of the head portion of the key (see fig. 1).

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Regarding claim 10, Friedrich et al. disclose that the sleeve of heat shrink material is preformed to conform to a body 4 of a lock.

Regarding claim 11, Friedrich et al. disclose that the sleeve of heat shrink material is preformed to conform to a shackle 4 of a lock.

Regarding claim 12, Friedrich et al. disclose that a method of manufacturing a heat shrink label for application to a key head, the method comprising: providing a heat shrink material having a substantially cylindrical shape 6 with a predetermined diameter; and cutting (col. 6, lines 30-33) the substantially cylindrically shaped heat shrink material into sleeves of a predetermined width, each sleeve having an opening therethrough, applying one of the sleeves over a key head and heat shrinking the sleeve to the key head.

Regarding claim 14, Friedrich et al. disclose pre-forming at least one of the substantially cylindrically shaped heat shrink material sleeves to partially conform to a known shape of a key head to which the at least one section is to be affixed (col. 5, lines 25-30).

Regarding claim 15, Friedrich et al. disclose that the sleeve is pre-formed to conform to the shape of the head portion of a key (col. 5, lines 25-30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich et al.

CX

Regarding the claim, Friedrich et al. fail to disclose that the substantially cylindrical sleeve is to be shrunk by application of heat from a heat source, the heat source comprises

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one of a gas flame, an electric heating element, an infrared heat source, a heated fluid, a solid fuel or like heating source. However, Friedrich et al. disclose that the sleeve is made of a heat shrink material that is to be shrunk by applying heat. It would have been obvious to one of ordinary skill in the art at the time of invention to use one of a gas flame, an electric heating element, an infrared heat source, a heated fluid, a solid fuel or like heating source, since they are well known in the art, because it is inexpensive and well controllable.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich et al. in view of Zaborney (4,608,323). CX

Regarding claim 13, Friedrich et al. fail to disclose that at least partially preshrinking the heat shrink material prior to affixation to the key head. However, Zaborney discloses that at least partially preshrinking the heat shrink (col. 1, line 39) material prior to affixation. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Zaborney in the invention of Friedrich et al. for the purpose of approximating the cell size. CX

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich et al. in view of Lesko (6,000,258). CX

Regarding claim 24, Friedrich et al. fail to disclose that the opening means comprises a key. However, Lesko discloses that said opening means comprises a key 10. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Lesko in the invention of Friedrich et al. because it is simple and inexpensive.

Claims 16-18 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesko (6,000,258) in view of Friedrich et al.

Regarding claims 16 and 25, Lesko discloses that a labeling system comprising: means for labeling a key 10 (col. 1, line 57; see fig. 1) and means for labeling a lock 20 (col. 2,

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line 21; see fig. 7A); the key label means and the lock label means being adapted to indicate that the key and the lock are associated with each other.

However, Lesko fails to disclose that means for labeling a key including a first substantially cylindrical sleeve of a heat shrink material having a first predetermined diameter, a first predetermined length, an inner surface and an outer surface, such that the inner surface of the key label means is adapted to fit around a head end of a key and be shrunk to substantially encase the head end of the key, the first substantially cylindrical sleeve having a through opening to fit around the head end of the key and be shrunk to substantially encase the head end of the key and means for labeling a lock including a second substantially cylindrical sleeve of a heat shrink material having a second predetermined diameter, a second predetermined length, an inner surface and an outer surface and a through opening such that the inner surface of the lock label means is adapted to fit around a portion of a lock and be shrunk to substantially encase the portion of the lock. However, Friedrich et al. disclose that means for labeling a key including a first substantially cylindrical sleeve 6 of a heat shrink material having a first predetermined diameter, a first predetermined length, an inner surface 10 and an outer surface, such that the inner surface of the key label means is adapted to fit around a head end of a key and be shrunk to substantially encase the head end of the key, the first substantially cylindrical sleeve having a through opening to fit around the head end of the key and be shrunk to substantially encase the head end of the key. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Friedrich et al. in the invention of Lesko because it is simple and inexpensive.

Regarding the limitation of means for labeling a lock including a second substantially cylindrical sleeve of a heat shrink material having a second predetermined diameter, a second predetermined length, the limitation includes similar structure with a different shape

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for the purpose of conforming a lock that has a different diameter than a lock. Friedrich et al. disclose substantially cylindrical sleeve of a heat shrink material having a diameter to conform any shape as desired. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to make the sleeve of Friedrich et al. of a second diameter to label a lock, since it only requires common knowledge in the art, because it is easy and inexpensive.

Regarding claims 17 and 26, Lesko fails to disclose that the second substantially cylindrical sleeve is formed to fit around a body portion of the lock. However, Friedrich et al. disclose that the second substantially cylindrical sleeve is formed to fit around a body portion 4 of the lock. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Friedrich et al. in the invention of Lesko because it is simple and inexpensive.

Regarding claims 18 and 27, Lesko fails to disclose that the second substantially cylindrical sleeve is formed to fit around a shackle portion of the lock. However, Friedrich et al. disclose that the second substantially cylindrical sleeve is formed to fit around a shackle portion 4 of the lock. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Friedrich et al. in the invention of Lesko because it is simple and inexpensive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed A. Islam whose telephone number is (571) 272-7768. The examiner can normally be reached on Monday-Friday 9am-6pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lesley D. Morris
SPE
Art Unit 3611

SI
July 5, 2007

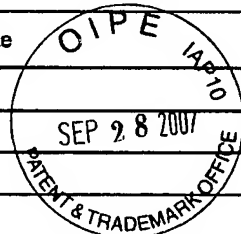


LESLEY D. MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Notice of References Cited	Application/Control No. 10/550,944	Applicant(s)/Patent Under Reexamination WILSON, JAMES C.	
	Examiner Syed A. Islam	Art Unit 3611	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,938,771	09-2005	Friedrich et al.	206/497
*	B	US-6,000,258	12-1999	Lesko, Joseph John	70/460
*	C	US-4,608,323	08-1986	Zaborney, John F.	429/167
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			



FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

JC12 Rec'd [REDACTED] PTC 28 SEP 2005

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

[illegible]

Examiner Signature	/Syed Islam/	Date Considered	06/29/2007
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¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

10/550944
JC12 Rec'd PTC 28 SEP 2005

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Approved for use through 10/31/2002. OMB 0651-0031

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete it Known	
		Application Number	---
		Filing Date	September 28, 2005
		First Named Inventor	James C. WILSON
		Group Art Unit	
		Examiner Name	
Sheet 1	of 2	Attorney Docket Number	T3987-10161US01

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. 1	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code 2 (if known)			
/S/	AA	1,485,075		GUMAER	02/26/1924	
	AB	1,794,498		RIDGWAY	03/03/1931	
	AC	1,837,114		CICOUREL	12/15/1931	
	AD	1,868,563		CICOUREL	07/26/1932	
	AE	1,897,861		QUAY	02/14/1933	
	AF	1,966,550		HANDY	07/17/1934	
	AG	2,109,268		I'ANSON	02/22/1938	
	AH	2,138,309		STEVENSON	11/29/1938	
	AI	2,173,752		CARRINGTON	09/19/1939	
	AJ	2,432,498		BLOOMFIELD	12/16/1947	
	AK	2,932,107		MANZARDO	04/12/1960	
	AL	2,982,041		KENT	05/02/1961	
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	AN	3,123,926		JACOBSON	03/10/1964	
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	AQ	US2004/0045197	A1	TOMSICH	03/11/2004	
	AR	2,349,745		MORRIS	05/23/1944	
	AS	5,113,602		LEVINE et al.	05/19/1992	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. 1	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Office 2	Number 4	Kind Code 5 (if known)				

Examiner Signature		Date Considered	
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* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

**KEY IDENTIFICATION SYSTEM AND
FORM FITTING LABEL AND METHOD OF MANUFACTURE**

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of United States Provisional Patent Application No. 60/637,207, filed December 17, 2004, which is hereby incorporated by reference in its entirety herein.

FIELD OF THE INVENTION

[0002] The present invention relates generally to labels, and more particularly to form-fitting labels for a key, a lock and the like.

BACKGROUND

[0003] Conventional key labels, for example, metal-rimmed paper disks, are often attached to keys with key rings. Unfortunately, these labels usually do not work well, especially when the key and label are placed on a key ring or holder because they are cumbersome and when the label becomes detached from the key ring the original problem of not knowing what the key is for returns.

[0004] Another type of conventional key label, for example, key head covers, are designed to fit a limited number of key head shapes, but to not work well for all shapes of key heads. Specifically, once installed, key head covers do not allow for easy placement of the key on a key ring or holder because the key head cover either interferes with the keyhole or with the placement of the key and head cover on the key ring and makes the key ring bulky. Further, with loose fitting ring type covers a key is prone to becoming separated from the ring type cover.

[0005] Adhesive labels have also been used as key labels, but are inadequate because they require relatively large areas of flat surface to which to affix. Further,

adhesive labels tend to become detached as a result of the day-to-day use and handling of the key and because common adhesives do not adhere to metal keys well.

SUMMARY OF THE INVENTION

[0006] The present invention avoids the disadvantages of conventional key labels by reliance on the use of a heat shrinkable material in the form of a cylindrical sleeve that is adapted to be placed over the head of a key and heat shrunk so that it tightly envelops the key head. The cylinder may be of selected diameter and width, according to the size of the key head and may be configured to ensure that it does not obstruct a key ring opening and interfere with placement on a key ring.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The convention will be more readily understood by reference to the following drawings wherein like reference characters represent like parts throughout the several views.

[0008] FIG. 1 is a perspective view of a key label, in accordance with an embodiment of the present invention.

[0009] FIG. 2 is a front elevational view showing the placement of the key label of FIG. 1 around a key head prior to shrinking of the key label, in accordance with an embodiment of the present invention.

[0010] FIG. 3 is a top view showing the placement of the key label of FIG. 1 around a key head prior to shrinking of the key label, in accordance with an embodiment of the present invention.

[0011] FIG. 4 is a front elevational diagrammatic view showing a heat shrinking process for attaching a key label to a key, in accordance with an embodiment of the present invention.

[0012] FIG. 5 is a side diagrammatic view showing an alternative heat shrinking process for attaching a key label to a key, in accordance with another embodiment of the present invention.

[0013] FIG. 6 is a front elevational and diagrammatic view of a key, which has had a label attached thereto and being labeled or identified by a marking device, in accordance with an embodiment of the present invention.

[0014] FIG. 7 is a front elevational view of the key label of FIG. 6 after being labeled by the marking device, in accordance with an embodiment of the present invention.

[0015] FIG. 8 is a front view of attaching a standard preprinted adhesive label to the face of a key label that is already attached to a head end of a key, in accordance with an embodiment of the present invention.

[0016] FIG. 9 is a front-perspective view of alternative and/or jointly used labels already applied to a lock and labeled, in accordance with embodiments of the present invention.

DETAILED DESCRIPTION

[0017] Referring to the drawings, and in particular to FIG. 1, there is illustrated a perspective view of a key label 10, in accordance with an embodiment of the present invention. Key label 10 is advantageously formed of a heat shrink material in a substantially cylindrical shape in a variety of predetermined diameters or a substantially predetermined molded shape to correspond closely to the shape of a key head and may be trimmed to a length L which, generally, would be less than the length of the key head to be labeled. For example, in some embodiments length L may range from about 1/8" to 1", more or less. However, this range is not intended to limit the possible sizes, but rather is merely illustrative of select embodiments, and

embodiments with lengths both less than 1/8" and greater than 1" are also contemplated. The cut section of 10 is of a flexible material that enables it to be compressed or flattened by hand to allow it to pass over a key head, as shown in Fig.

2. It will be appreciated that label 10 may be cut from an elongated tubular member, flattened into a sleeve shape for packaging and distribution. Key label 10 includes an inner surface 11 and an outer surface 13 and may be formed from a heat shrink film such as polyolefin, polyvinyl chloride, polytetrafluoroethylene (sold under the trade name Teflon), polychloroprene (sold under the trade name Neoprene), or the like. In addition, key label 10 may be colored (for example, white, red, blue, green, yellow, or other color), preprinted with identifying information, formed so as to be written on, and partially and/or totally transparent. Alternatively, key label 10 may be formed into a substantially rectangular sleeve with two pairs of opposing walls, such that the inner perimeter of the walls measured on inner surface 11 may be approximately the same as the outer surface dimensions of the key head to which it is to be applied. In yet other alternatives, key label 10 may be formed into a variety of different geometric shapes that approximate the shape of the key heads and/or items to which they are to be applied. In still other alternatives, a heat activated adhesive may be applied to inner surface 11 of key label 10 to aid in the permanent affixation of key label 10 to the surface of the key head.

[0018] In general, to apply key label 10 to an item, key label 10 is first deformed slightly and slipped over a substantially flat portion of the key head. Next, if necessary, key label 10 may be held in place with pliers, tweezers, a clothespin, or a like label-holding device. Alternatively, key label 10 may be held in place by friction between inner surface 11 and an outer surface of the key head and/or with a label-holding device. Next, sufficient heat is applied to key label 10 causing it to shrink

and conform to the outline of the key head. Finally, a suitable mark or identification may be placed on key label 10 by stamping or using a permanent pen such as, for example, a Sharpie Industrial marking pen, or other permanent writing implement.

[0019] FIG. 2 is an elevational view showing the placement of the key label of FIG. 1 around a key head prior to shrinking of the key label, in accordance with an embodiment of the present invention. In particular, key label 10 is placed around a key head 15 of a key 12 prior to shrinking. Key label 10 may be formed as a flattened cylindrical sleeve, which may facilitate sliding key head 15 of key 12 into key label 10. Key label 10 also may be formed in different sizes to accommodate various shapes and sizes of key heads.

[0020] FIG. 3 is a top view showing the placement of the key label of FIG. 1 around a key head prior to shrinking of the key label, in accordance with an embodiment of the present invention. In FIG. 3, although key label 10 is shown to not be in contact with key head 15, key label 10 may be sized so that it frictionally contacts one or more edges and/or surfaces of key head 15. If key label 10 frictionally contacts the edges and/or surfaces of key head 15, key label 10 may be heat shrunk to key head 15 without having to hold key label 10 and key 12/key head 15 together.

[0021] FIG. 4 is a front view showing a heat shrinking process for attaching a key label to a key head, in accordance with an embodiment of the present invention. As shown in FIG. 4, heat from a suitable heat source 14 such as, for example, a hair dryer or heat gun, may be applied to key label 10. As heat is applied to key label 10, there results a partially shrunk key label 16 around key head 15. With continued application of heat from heat source 14, partially shrunk key label 16 may continue to shrink around and conform to the shape of key head 15 of key 12.

[0022] FIG. 5 is a side view showing an alternative heat shrinking process for attaching a key label to a key, in accordance with another embodiment of the present invention. In FIG. 5, key 12 and partially shrunk key label 16 may be heated by a flame 18 either directly or through a screen/barrier (not shown) to prevent the burning and/or discoloration/deformation of key label 10.

[0023] While heat gun 14 and flame 18 are shown in FIGs. 4 and 5, it should be appreciated that other heat sources may also be used, such as a gas flame source (for example, butane, propane, or other gas), an electric heat source (for example, a heat gun, an iron, a burner, or the like), a heated fluid (for example, hot air or liquid), a solid fuel (for example, a canned heat cooking fuel), or the like. Regardless of the heat source, the heat may be applied to the key label until the key label has shrunk to fit the form of the head end of the key. Once the key label has been shrunk and cooled, suitable marking or identification may be applied to its surface 25. To this end key label 10 is made of an appropriate material that permits writing and/or affixation on the label as desired.

[0024] FIG. 6 shows a key label 10 attached to a key head 15 with surface 25 being labeled by being written on, in accordance with an embodiment of the present invention. In particular, a fully shrunk key label 22 is shown fitting around the head end of key 12. It should be noted that a keyhole 23 of key 12 has been left exposed to allow key 12 to be placed on a key ring or holder, while key cuts on shank 19 are also clear of the sleeve. A prepunched hole in the key label may also be provided to allow for key ring holes. A writing implement 24 is shown being used to place a writing 20 on fully shrunk key label 22. The writing implement 24 may be, for example, a pencil, pen, marker, permanent marker, or the like. However, to provide extended durability of writing 20, using a permanent marker to apply writing 20 is suggested.

[0025] It should be appreciated that in addition to, or instead of, being able to be written on, fully shrunk key label 22 may be preprinted with label names and/or symbols. If fully shrunk key label 22 is preprinted, the label names and/or symbols may be slightly over-sized and/or distorted to allow for size and shape changes when key label 10 shrinks around the head end of key 12. Alternatively, fully shrunk key label 22 may be at least partially transparent to allow the surface of the key to be written on and/or to permit a label to be placed between key 12 and key label 10 to be visible from beneath fully shrunk key label 22.

[0026] FIG. 7 shows the key label of FIG. 6 after being labeled, in accordance with an embodiment of the present invention. In particular, fully shrunk key label 22 has been shrunk to closely fit the form of the head end of key 12 and writing 20 has been applied to fully shrunk key label 22. Fully shrunk key label 22 may be trimmed after it has been applied to remove any excess shrunk label material. Alternatively, fully shrunk key label 22 may be trimmed prior to heat shrinking.

[0027] FIG. 8 is a front view of attaching a standard preprinted adhesive label to the face of a key label that is already attached to a head end of a key, in accordance with an embodiment of the present invention. In FIG. 8, a fully shrunk key label, for example, fully shrunk key label 22 of FIG. 6, is shown having a preprinted adhesive label 26 being affixed to a front surface 27 of fully shrunk key label 22. Front surface 27 of fully shrunk key label 22 provides an adhesive-friendly surface for the adhesive label to properly affix thereto.

[0028] In addition to key labels, form-fitting labels made of heat shrink material in accordance with the present invention may also be used to label locks and, in particular, pad locks. The heat shrink sleeves may be placed around lock bodies, especially pad locks or the shackle of pad locks, to enable labeling. The heat shrink

labels for locks are applied in a manner similar to that used for key labels. Further, the key labels and lock labels may be color-coded, for example, so that the color of the key labels and the lock labels match each other for convenient association of a key with a lock that the key opens.

[0029] FIG. 9 is a front-perspective view of alternative labels already applied to a lock and labeled, in accordance with an embodiment of the present invention. In FIG. 9, a lock 32 has affixed around a portion of its middle a heat shrink label 34 with a mark or identification 36 applied thereon to which could indicate which similarly labeled key applies to lock. 32. Conveniently, in this type of lock, a preprinted identification label may be placed beneath a transparent heat shrink label 34. Alternatively, a shackle 30 of lock 32 may have a label 34 with lettering 36 affixed thereto.

[0030] As is apparent from the above description and the figures referenced therein, there is provided a form fitting key label in accordance with the present invention. While this invention has been described in conjunction with a number of embodiments, it is evident that many alternatives, modifications and variations would be or are apparent to those of ordinary skill in the applicable arts. Accordingly, applicant intends to embrace all such alternatives, modifications, equivalents and variations that are within the spirit and scope of this invention.

WHAT IS CLAIMED IS:*(Presently Amended)*

1. A key label comprising:

a substantially cylindrical sleeve having an inner surface and an outer surface and formed of a heat shrink material, the inner surface of the substantially cylindrical sleeve having a through opening adapted to slip over a key head such that if fits around a head end of a key and the substantially cylindrical sleeve to be heat shrunk to substantially encase the head end of the key, the sleeve made of a material having

(Original)

2. The key label of claim 1, wherein when the substantially cylindrical sleeve

is shrunk to fit around the head end of the key upon being heated to a predetermined temperature, the inner surface of the substantially cylindrical sleeve at least partially contacting a portion of the head end of the key after shrinking.

(Original)

3. The key label of claim 1, wherein the outer surface of the substantially

cylindrical sleeve provides a writeable surface for application of an identifying mark to be applied.

4. The key label of claim 1, wherein the substantially cylindrical sleeve, when shrunk covers only the head end of the key.

(Presently Amended)

5. The key label of claim 1, wherein the heat shrink material comprises one of

polyolefin, polyvinyl chloride, polytetrafluoroethylene (Teflon), or polychloroprene (Neoprene) or the like.

6. The key label of claim 1, wherein the substantially cylindrical sleeve is preprinted with identifying information.

7. The key label of claim 1, wherein the substantially cylindrical sleeve is at least partially transparent.

8. The key label of claim 1, wherein the substantially cylindrical sleeve is attached to a key by applying heat to the substantially cylindrical sleeve.

9. The key label of claim 1, wherein the substantially cylindrical sleeve is to be shrunk by application of heat from a heat source, the heat source comprises one of a gas flame, an electric heating element, an infrared heat source, a heated fluid, a solid fuel or like heating source.

10. The key label of claim 1, wherein the sleeve of heat shrink material is preformed to conform to a body of a lock.

11. The key label of claim 1, wherein the sleeve of heat shrink material is preformed to conform to a shackle of a lock.

12. A method of manufacturing a heat shrink label for application to a key head, the method comprising:

providing a heat shrink material having a substantially cylindrical shape with a predetermined diameter; and cutting the substantially cylindrically shaped heat shrink material into sleeves of a predetermined width, each sleeve having an opening therethrough, applying one of the sleeves over a key head and heat shrinking the sleeve to the key head.

13. ^(c)The method of manufacturing of claim 12, further comprising at least partially preshrinking the heat shrink material prior to affixation to the key head.

14. The method of manufacturing of claim 13, further comprising pre-forming at least one of the substantially cylindrically shaped heat shrink material sleeves to partially conform to a known shape of a key head to which the at least one section is to be affixed.

15. The method of manufacturing of claim 13, wherein the sleeve is pre-formed to conform to the shape of the head portion of a key.

16. A labeling system comprising:

a key label including a first substantially cylindrical sleeve of a heat shrink material having a first predetermined diameter, a first predetermined length, an inner surface and an outer surface, such that the inner surface of the key label is adapted to fit around a head end of a key and be shrunk to substantially encase the head end of the key, the first substantially cylindrical sleeve having a through opening to fit around the head end of the key and be shrunk to substantially encase the head end of the key; and

a lock label including a second substantially cylindrical sleeve of a heat shrink material having a second predetermined diameter, a second predetermined length, an inner surface and an outer surface and a through opening such that the inner surface of the lock label is adapted to fit around a portion of a lock and be shrunk to substantially encase the portion of the lock;

the key label and the lock label being adapted to indicate that the key and the lock are associated with each other.

17. The labeling system of claim 16 wherein the second substantially cylindrical sleeve is formed to fit around a body portion of the lock.

18. The labeling system of claim 16 wherein the second substantially cylindrical sleeve is formed to fit around a shackle portion of the lock.

19. A key label comprising:

means for substantially encasing a head end of means for opening, said substantially encasing means including a substantially cylindrical sleeve having an inner surface and an outer surface and formed of a heat shrink material, the inner surface of the substantially cylindrical sleeve having a through opening adapted to slip over a head end of the opening means to be heat shrunk to substantially encase the head end of the opening means.

20. The key label of claim 19, wherein when the substantially cylindrical sleeve is shrunk to fit around the head end of the opening means upon being heated to a predetermined temperature, the inner surface of the substantially cylindrical sleeve at least partially contacting a portion of the head end of the opening means after shrinking.

21. The key label of claim 19, wherein the outer surface of the substantially cylindrical sleeve provides a writeable surface for application of an identifying mark to be applied.

22. The key label of claim 19, wherein the substantially cylindrical sleeve, when shrunk covers only the head end of the opening means.

23. The key label of claim 19, wherein the heat shrink material comprises one of polyolefin, polyvinyl chloride, polytetrafluoroethylene (Teflon), or polychloroprene (Neoprene) or the like.

24. The key label of claim 19, wherein the opening means comprises:
a key.

25. A labeling system comprising:

means for labeling a key including a first substantially cylindrical sleeve of a heat shrink material having a first predetermined diameter, a first predetermined length, an inner surface and an outer surface, such that the inner surface of the key label means is adapted to fit around a head end of a key and be shrunk to substantially encase the head end of the key, the first substantially cylindrical sleeve having a through opening to fit around the head end of the key and be shrunk to substantially encase the head end of the key; and

means for labeling a lock including a second substantially cylindrical sleeve of a heat shrink material having a second predetermined diameter, a second predetermined length, an inner surface and an outer surface and a through opening such that the inner surface of the lock label means is adapted to fit around a portion of a lock and be shrunk to substantially encase the portion of the lock;

the key label means and the lock label means being adapted to indicate that the key and the lock are associated with each other.

26. The labeling system of claim 25 wherein the second substantially cylindrical sleeve is formed to fit around a body portion of the lock.

27. The labeling system of claim 25 wherein the second substantially cylindrical sleeve is formed to fit around a shackle portion of the lock.

ABSTRACT

A heat-shrinkable label and labeling system including a key label (10) having a substantially cylindrical sleeve having an inner surface (11) and an outer surface (12) and formed of a heat shrink material of a size to fit around a head end (15) of a key (12) and to be shrunk to substantially encase the head end (15) of the key (12).

#927282011V1

Fig. 1

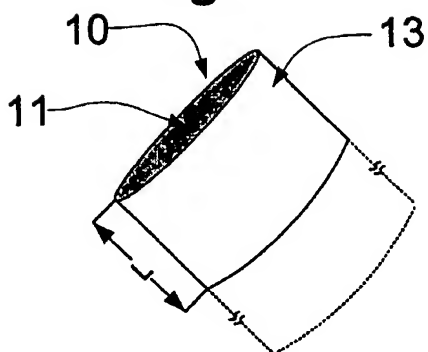


Fig. 2

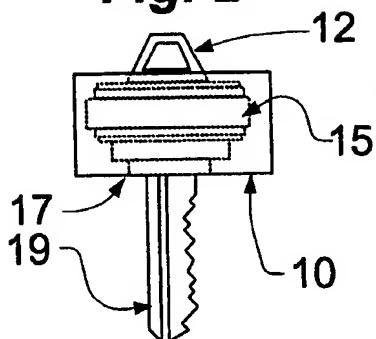


Fig. 3

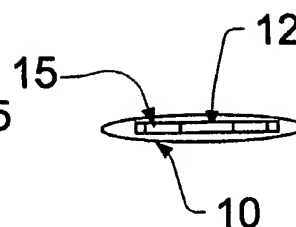


Fig. 4

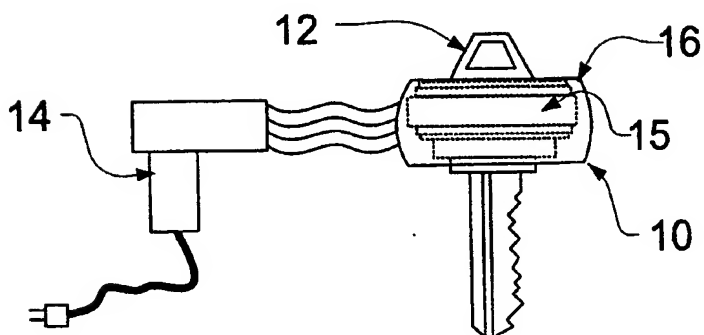


Fig. 5

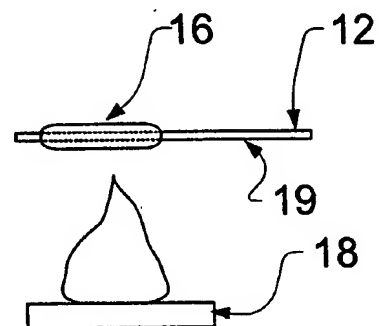


Fig. 6

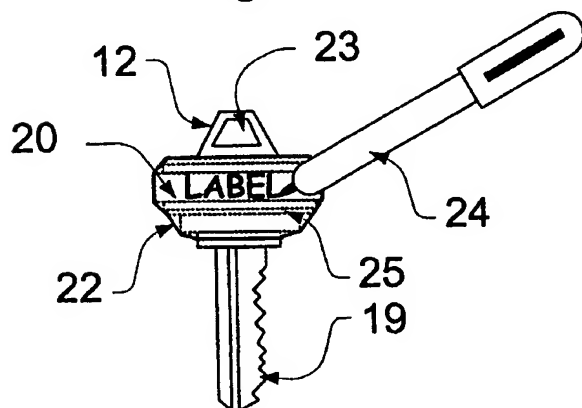


Fig. 7

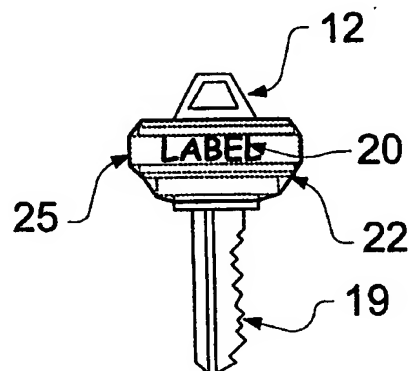


Fig. 8

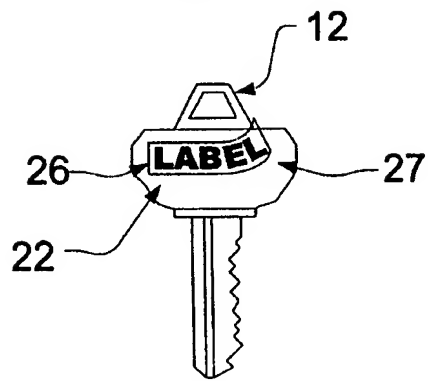


Fig. 9

